



SEQUENCE LISTING

<110> BRADY, Hugh Redmond et al.
 <120> Identification of genes having a role in the presentation of diabetic nephropathy
 <130> 1377-0170P
 <140> US 09/914,191
 <141> 2001-08-24
 <150> 990157
 <151> 1999-02-26
 <160> 33
 <170> PatentIn Ver. 2.1
 <210> 1
 <211> 598
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> Unsure
 <222> (1)..(598)
 <223> any n =a,c,g,t any unknown or other

<400> 1
 ttggaatagt tcttgcttta taaaaatagt actgcgatta aaaaaaaagc acttctgcc 60
 aaggaaccat gttccaacac cgcaaacaag gtgttctgct taaacagagt aagatacacc 120
 acccccatcc atcccttcct tccctgttcc cctcccaact tgagttgtgt cattcgacc 180
 agtgctcctgg gtggtaggga tgctacagcc acctaaggca aggagccctg ggaggtggga 240
 gggcttgcat ggttaagcac accagaactg aagcgcaaaa gggtcagctg tcttcatcta 300
 gaatctctgg atgttccttc cagaaagcat ccccgatgat atcgcagtcg aagggcactg 360
 gctttgtcct ggtccgggtc actgccatct ttttctcttc catttctgtt ggcagcttaa 420
 tttcttttgt catcacttca tccaccttct gccatatcaa cacagtcctt ttcctataca 480
 tcggcagctc attattatag ttgatgttga attcagaaaa caaatctca ttcttgtctg 540
 ctgnaagagt tccctgtaat ctcccttggg cttgtactgg tgtagtcca gattgttg 598

<210> 2
 <211> 761
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> Unsure
 <222> (1)..(761)
 <223> any n =a,c,g,t any unknown or other

<400> 2
 ggtcctttaa agtctggttg ctgggatata ccacgactct tccgggtcaaa gcttggggga 60
 tacagaaggg gctrgtcctc aaagtaatcc cgccaataaa acayatagct ggaggcaaac 120
 tgggaggyca cgtgagtcac gaactttact ggctcttctt ttaaaccaat tggttttccg 180
 cttgwacaca aagctgtact catcactctg tccataacgc gatcacaata tcctctagtt 240

```

cttccatcac agtctgcgca catttggtca tcagctggag agcacggctg tcattggggt 300
ttgcaaagtt gtgcttctca gcaaaccgat ggaaattccg gccgtccage cgnactacca 360
cccagcagtg tgccaggcag gtgtcgtcag cctcgaagtc cctcacgtac tcgaacttgc 420
tttttgccat ggtcgccccc aatctcaggt accgtctcag agtgatggaa atggtggcca 480
aggaatcgtg aaccttaact ttacaggcgc cccacattct acacgcggaa aggaaagggc 540
cagatagccc cgccccgaa gtgttctctt cgtggctact ctagccgtag ggcggtcata 600
gtctctctcg sctctccctg kagttcttaa mcyccaggg aaaraggatg gaggtttagg 660
ttcctccgtt agcaccttcc acgcttgctt cttcctctc cgggtctgcg gcaaatacgt 720
ctcacgaggt ttttaaaaat tattttttat ctgctggcct t 761

```

<210> 3
 <211> 393
 <212> DNA
 <213> Homo sapiens

<220>
 <221> Unsure
 <222> (1)..(393)
 <223> any n =a,c,g,t any unknown or other

```

<400> 3
atgacacaaa tattaggatt ttattttttac tattatccac cagcaacaag atatcaaaaca 60
ctgggttctgt gattattttaa tggtgaaaaa gttgaataaa tcaatttagt ataccatata 120
gttggaatat tgagtccatt tttctttttaa aaatcacact ttggaataat tgatgatact 180
ggcaaatgct caagctgagt ggaaaaatat ataaacattg tataggcgaa taattccaat 240
cttgtgcatt cctgtgttaa acctacatac acaaaaagaa aaaagactga aaggaaccat 300
ccacaatgct ttgatcggga aagacggaga aacaaagtgt taattttctt aactatagtt 360
ttnggtgtat tccagatttt ctacaagtta ata 393

```

<210> 4
 <211> 435
 <212> DNA
 <213> Homo sapiens

```

<400> 4
gtactttgga tttgggttaac ctgttttctt caagcctgag gttttatata caaactccct 60
gaatactctt tttgccttgt atcttctcag cctcctagcc aagtcctatg taatatggaa 120
aacaacact gcagacttga gattcagttg cogatcaagg ctctggcatt cagagaaccc 180
ttgcaactcg agaagctgtt tttatttctg ttttggtttg atccagtgt ctcccatcta 240
acaactaaac aggagccatt tcaaggcggg agatatttta aacacccaaa atggttggtg 300
ctgattttca aactttttaa attcactact gatgattctg cacgctaagg cgaatttggt 360
ccaaacacat aagtgtgtgt gttttgtata cactgtatga cccaccccca aatctttgta 420
ttgtccacat tctcc 435

```

<210> 5
 <211> 273
 <212> DNA
 <213> Homo sapiens

<220>
 <221> Unsure
 <222> (1)..(273)
 <223> any n =a,c,g,t any unknown or other

<400> 5

```

agaagcaatt taggaanccn acagnaaana aatgctgttt tataggagag aaaacacggc 60
acaccaaggt taagtagttt gtagacgatg ttgaataggt tcaggtagag gtcaatgcag 120
tgatgaggaa agcacctang tatacttgac agatagtccc ctttgcttaa caccacaactc 180
ctccacctg tgcagtttnn cttgtgccag tgatcacagg attcgtgag tgaattacca 240
taattggatt taattcacga aggggatgtt ttc 273

```

<210> 6

<211> 309

<212> DNA

<213> Homo sapiens

<400> 6

```

attgatagag gccctgtttc atgacatttc atgagtttca atatgttggt cagcatgttg 60
tgagggtgact ctcagcccct ttcccactga gatggactgt ggtgatgctg tgaggggtgtg 120
actgacacac cttcatgtgc ccaagcatgg gtttgatcac aggtcacatg cagtttttgg 180
catagtaaat gtatcattgt tcttttcctc cctcctaaag gaaacagagg aatccacctg 240
tatgagagtg ccatgtaggg ataaacttaa aggacagatg acacattggt catgttcgtg 300
ataaggaaa 309

```

<210> 7

<211> 20

<212> DNA

<213> Homo sapiens

<400> 7

```

accacagtcc atgccatcac 20

```

<210> 8

<211> 20

<212> DNA

<213> Homo sapiens

<400> 8

```

tccaccaccc tgttgctgta 20

```

<210> 9

<211> 20

<212> DNA

<213> Homo sapiens

<400> 9

```

ggtcttcctg gcttaaaggg 20

```

<210> 10

<211> 20

<212> DNA

<213> Homo sapiens

<400> 10

```

gctggtcagc cctgtagaag 20

```

<210> 11
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 11
 ccaggagttc caggatttca 20

<210> 12
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 12
 ttttgggtccc agaaggacac 20

<210> 13
 <211> 18
 <212> DNA
 <213> Homo sapiens

<400> 13
 cgaaatcaca gccagtag 18

<210> 14
 <211> 18
 <212> DNA
 <213> Homo sapiens

<400> 14
 atcacatcca cacggtag 18

<210> 15
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 15
 ctaagacctg tggaatgggc 20

<210> 16
 <211> 21
 <212> DNA
 <213> Homo sapiens

<400> 16
 ctcaaagatg tcattgtccc c 21

<210> 17
 <211> 20

<212> DNA	
<213> Homo sapiens	
<400> 17	
atgagccgca cagcctacac	20
<210> 18	
<211> 23	
<212> DNA	
<213> Homo sapiens	
<400> 18	
ttaatccaaa tcgatggata tgc	23
<210> 19	
<211> 21	
<212> DNA	
<213> Homo sapiens	
<400> 19	
ctcagcctcc tagccaagtc c	21
<210> 20	
<211> 21	
<212> DNA	
<213> Homo sapiens	
<400> 20	
gtattgtcca cattctccaa c	21
<210> 21	
<211> 20	
<212> DNA	
<213> Homo sapiens	
<400> 21	
atgagccgca cagcctacac	20
<210> 22	
<211> 21	
<212> DNA	
<213> Homo sapiens	
<400> 22	
gtattgtcca cattctccaa c	21
<210> 23	
<211> 20	
<212> DNA	
<213> Homo sapiens	

atccggacgc ctaaaattgc caagcctgtc aagtttgagc tttctggctg caccagtgtg 180
aagacctacc gggctaagtt ctgtggggtg tgcacggacg gccgctgctg cacaccgcac 240
agaaccacca cactgccggt ggagttcaag tgcccccatt gcgaaatcat gaaaaagaac 300
atgatgttca tcaagacctg tgccctgcat tacaactgtc c 341

<210> 30
<211> 341
<212> DNA
<213> Mus sp.

<400> 30
atctccaccc gagttaccaa tgacaatacc ttctgcagac tggagaagca gagccgcctc 60
tgcattgtca ggcctgcga agctgacctg gagggaaaca ttaagaaggg caaaaagtgc 120
atccggacac ctaaaatcgc caagcctgtc aagtttgagc tttctggctg caccagtgtg 180
aagacataca gggctaagtt ctgcggggtg tgcacagacg gccgctgctg cacaccgcac 240
agaaccacca ctctgccagt ggagttcaaa tgcccccatt gcgagatcat gaaaaagaat 300
atgatgttca tcaagacctg tgccctgcat tacaactgtc c 341

<210> 31
<211> 113
<212> PRT
<213> Rattus sp.

<400> 31
Ile Ser Thr Arg Val Thr Asn Asp Asn Thr Phe Cys Arg Leu Glu Lys
1 5 10 15
Gln Ser Arg Leu Cys Met Val Arg Pro Cys Glu Ala Asp Leu Glu Glu
20 25 30
Asn Ile Lys Lys Gly Lys Lys Cys Ile Arg Thr Pro Lys Ile Ala Lys
35 40 45
Pro Val Lys Phe Glu Leu Ser Gly Cys Thr Ser Val Lys Thr Tyr Arg
50 55 60
Ala Lys Phe Cys Gly Val Cys Thr Asp Gly Arg Cys Cys Thr Pro His
65 70 75 80
Arg Thr Thr Thr Leu Pro Val Glu Phe Lys Cys Pro His Gly Glu Ile
85 90 95
Met Lys Lys Asn Met Met Phe Ile Lys Thr Cys Ala Cys His Tyr Asn
100 105 110
Cys

<210> 32
<211> 113
<212> PRT
<213> Mus sp.

<400> 32

Ile Ser Thr Arg Val Thr Asn Asp Asn Thr Phe Cys Arg Leu Glu Lys
 1 5 10 15
 Gln Ser Arg Leu Cys Met Val Arg Pro Cys Glu Ala Asp Leu Glu Glu
 20 25 30
 Asn Ile Lys Lys Gly Lys Lys Cys Ile Arg Thr Pro Lys Ile Ala Lys
 35 40 45
 Pro Val Lys Phe Glu Leu Ser Gly Cys Thr Ser Val Lys Thr Tyr Arg
 50 55 60
 Ala Lys Phe Cys Gly Val Cys Thr Asp Gly Arg Cys Cys Thr Pro His
 65 70 75 80
 Arg Thr Thr Thr Leu Pro Val Glu Phe Lys Cys Pro Asp Gly Glu Ile
 85 90 95
 Met Lys Lys Asn Met Met Phe Ile Lys Thr Cys Ala Cys His Tyr Asn
 100 105 110

Cys

<210> 33
 <211> 4049
 <212> DNA
 <213> Homo sapiens

<400> 33

gcggccgcac tcagcgccac gcgtcgaaag cgcaggcccc gaggaccgc cgcactgaca 60
 gtatgagccg cacagcctac acggtgggag ccctgcttct cctcttgggg accctgctgc 120
 cggctgctga agggaaaaag aaagggtccc aagggtgccat cccccgccca gacaaggccc 180
 agcacaatga ctcagagcag actcagtcgc cccagcagcc tggctccagg aaccgggggc 240
 ggggccaagg gcggggcact gccatgcccg gggaggagggt gctggagtcc agccaagagg 300
 ccctgcatgt gacggagcgc aaatacctga agcgagactg gtgcaaaacc cagccgctta 360
 agcagaccat ccacgaggaa ggctgcaaca gtcgcaccat catcaaccgc ttctgttacg 420
 gccagtgc aa ctctttctac atccccaggc acatccggaa ggaggaagggt tcctttcagt 480
 cctgtcctt ctgcaagccc aagaaattca ctaccatgat ggtcacactc aactgccctg 540
 aactacagcc acctaccaag aagaagagag tcacacgtgt gaagcagtgt cgttgcatat 600
 ccatcgattt ggattaagcc aaatccagggt gcaccagca tgtcctagga atgcagcccc 660
 aggaagtccc agacctaaaa caaccagatt cttacttggc ttaaacctag aggccagaag 720
 aacccccagc tgctcctgg caggagcctg cttgtgcgta gttcgtgtgc atgagtgtgg 780
 atgggtgcct gtgggtgttt ttagacacca gagaaaacac agtctctgct agagagcact 840
 ccctattttg taaacatatc tgctttaatg gggatgtacc agaaaccac ctcaccccg 900
 ctcacatcta aaggggcggg gccgtggtct ggttctgact ttgtgttttt gtgcctcct 960
 ggggaccaga atctcctttc ggaatgaatg ttcattggaag aggtcctct gagggcaaga 1020
 gacctgtttt agtgctgcat tcgacatgga aaagtcctt taacctgtgc ttgcatcctc 1080
 ctttcctcct cctcctcaca atccatctct tcttaagtgt atagtacta tgtcagtcta 1140
 atctcttgtt tgccaagggt cctaaattaa ttcacttaac catgatgcaa atgtttttca 1200
 ttttgtgaag accctccaga ctctgggaga ggctggtgtg ggcaaggaca agcaggatag 1260
 tggagtgaga aaggaggagg ggagggtgag gccaaatcag gtccagcaaa agtcagtagg 1320
 gacattgcag aagcttgaaa ggccaatacc agaacacagg ctgatgcttc tgagaaagtc 1380
 ttttcctagt atttaacaga acccaagtga acagaggaga aatgagattg ccagaaagtg 1440
 attaaccttg gccgttgcaa tctgctcaaa cctaacacca aactgaaaac ataaatactg 1500
 accactccta tgttcggacc caagcaagtt agctaaacca aaccaactcc tctgctttgt 1560


```

ccctcaggtg gaaaagagag gtagtttaga actctctgca taggggtggg aattaatcaa 1620
aaacckcaga ggctgaaatt cctaatacct ttcttttctc gtggttatag tcagctcatt 1680
tccattccac tatttcccat aatgcttctg agagccacta acttgattga taaagatcct 1740
gcctctgctg agtgtacctg acagtaagtc taaagatgar agagttagg gactactctg 1800
ttttagcaag aratattktg ggggtctttt tgttttaact attgtcagga gattgggcta 1860
ragagaagac gacgagagta aggaaataaa gggrattgcc tctggctaga gagtaagtta 1920
gggtgttaata cctggtagaa atgtaaggga tatgacctcc ctttctttat gtgctcactg 1980
aggatctgag gggaccctgt taggagagca tagcatcatg atgtattagc tgttcatctg 2040
ctactgggtg gatggacata actattgtaa ctattcagta tttactggta ggcactgtcc 2100
tctgattaaa cttggcctac tggcaatggc tacttaggat tgatctaagg gccaaagtgc 2160
aggggtgggtg aactttattg tactttggat ttgggttaacc tgttttcttc aagcctgagg 2220
ttttatatac aaactccctg aatactcttt ttgccttgta tcttctcagc ctcttagcca 2280
agtcctatgt aatatggaaa acaaacactg cagacttgag attcagttgc cgatcaaggc 2340
tctggcattc agagaaccct tgcaactcga gaagctgttt ttatttctgt tttgttttga 2400
tccagtgtct tcccattctaa caactaaaca ggagccattt caaggcgga gatattttta 2460
acacccaaaa tgttgggtct gattttcaaa cttttaaact cactactgat gattctcacg 2520
ctaggcgaat ttgtccaaac acatagtgtg tgtgttttgt atacactgta tgacccacc 2580
ccaaatcttt gtattgtcca cattctccaa caataaagca cagagtggat ttaattaagc 2640
acacaaatgc taaggcagaa ttttgagggt gggagagaag aaaagggaaa gaagctgaaa 2700
atgtaaaacc acaccaggga ggaaaaatga cattcagaac cagcaaacac tgaatttctc 2760
ttgttgtttt aactctgcca caagaatgca atttcgttaa tggagatgac ttaagttggc 2820
agcagtaatc ttcttttagg agcttgtacc acagctctgc acataagtgc agatttggct 2880
caagtaaaga gaatttcctc aacactaact tcactgggat aatcagcagc gtaactacc 2940
taaaagcata tcactagcca aagagggaaa tatctgttct tcttactgtg cctatattaa 3000
gactagtaca aatgtggtgt gtcttccaa tttcattgaa aatgccatat ctataccata 3060
ttttattcga gtcactgatg atgtaatgat atatttttctc attattatag tagaatattt 3120
ttatggcaag atatttgtgg tcttgatcat acctattaaa ataatgccaa acaccaaata 3180
tgaattttat gatgtacact ttgtgcttgg cattaaaaga aaaaaacaca catcctggaa 3240
gtctgtaagt tgttttttgt tactgtaggt cttcaaagtt aagagtgtaa gtgaaaaatc 3300
tggaggagag gataatttcc actgtgtgga atgtgaatag ttaaataaaa agttatgggt 3360
atttaattgt attattactt caaatccttt ggtcactgtg atttcaagca tgttttcttt 3420
ttctccttta tatgactttc tctgagttgg gcaaagaaga agctgacaca ccgtatgttg 3480
ttagagtctt ttatctggtc aggggaaaca aaatcttgac ccagctgaac atgtcttctc 3540
gagtcagtgc ctgaatcttt atttttttaa ttgaatgttc cttaaagggt aacatttcta 3600
aagcaatatt aagaaagact ttaaagttaa ttttggaaga cttacgatgc atgtatacaa 3660
acgaatagca gataatgatg actagttcac acataaagtc cttttaagga gaaaatctaa 3720
aatgaaaagt ggataaacag aacatttata agtgatcagt taatgcctaa gagtgaaagt 3780
agttctattg acattcctca agatatttaa tatcaactgc attatgtatt atgtctgctt 3840
aaatcattta aaaacggcaa agaattatat agactatgag gtaccttgct gtgtaggagg 3900
atgaaagggg agttgatagt ctcataaaac taatttggct tcaagtttca tgaatctgta 3960
actagaattt aattttcacc ccaataatgt tctatatagc ctttgctaaa gagcaactaa 4020
taaattaaac ctattctttc aaaaaaaaaa 4049

```

as
cannu